

**Eastern Tropical Pacific Dolphin Habitat Variability - Responses to comments by reviewers**  
by Paul Fiedler

John Twiss, Marine Mammal Commission, letter of February 12, 1999:

- 1) The conclusion of this document has been reworded to state that there is no evidence of long-term environmental change ~~A~~that might affect population growth rates of depleted dolphin stocks.@
- 2) The conclusion no longer refers to 1986. This was never intended to be a reference point for change, it only represents the beginning of MOPS sampling.
- 3) We are aware that other variables can be examined as indicators of possible environmental change. This document states clearly, in the first paragraph, which variables were used. The initial finding explains that other environmental variables will be examined for the final finding in 2001.
- 4) Some text was added to help readers understand the basics of the analyses we did. References are provided for readers needing more detail.

James Joseph, Inter-American Tropical Tuna Commission, letter of January 14, 1999:

In Dr. Joseph's list of plausible alternatives (p. 3), (a) and (e) are possible ecosystem changes that will be examined for the final finding. As for 1998 biases (i), this document states that the survey area is large enough to encompass shifts in population distribution as observed during the MOPS surveys. The planning meeting for SPAM98 (Gerrodette et al., 1998) found no significant difference in mean group size between El Niño and non-El Niño years, either in tuna vessel or research vessel observer data.

Robin Allen, Inter-American Tropical Tuna Commission, letter of February 3, 1999:

- 1) This sentence was changed to, ~~A~~Effects on dolphin distribution that might bias abundance estimates are not evident in yearly MOPS results, because the survey area is large enough to encompass interannual shifts in distribution.@
- 2) The phrase ~~A~~rather than a population response such as reproduction or survival@was removed. We have tried to make clear, in both the initial finding and this document, that we have not examined possible population responses to environmental variability, but rather have asked whether environmental change has occurred that might cause changes in abundance. Again, the italicized concluding sentence has been removed.
- 3) This document does look at long time series of environmental variables and habitat indices, not just the data collected in 1998. As Dr. Allen points out, a more comprehensive analysis and population modeling effort might be appropriate for the final finding.

Eileen Hofmann, Old Dominion University, letter of February 11, 1999:

The changes suggested in comments numbered 1,2,4,5, and 6 were made in the text. As Dr. Hofmann suggests in comment #3, several authors have assigned quantitative levels of strength to historical events, based on SST anomalies or SOI. The adjectives used to describe recent events in this document are commonly used and I don't think it is necessary to specify numerical limits.

Dr. David Behringer, NOAA/NWS/NCEP, letter of January 12, 1999:

The discussion of habitat variability has been clarified as suggested. More details are in the references cited and included in this packet.

Dr. Tim Barnett, Scripps Institution of Oceanography:

Dr. Barnett returned three minor comments on the draft he read, all of which have been incorporated. In a phone conversation on or about January 28, 1999, he stated that he thought the conclusions were reasonable.